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UNITED STATES DEPARTMENT OF AGRICULTURE
Forest Service
Division of Forest Insect Research
Forest Insect Laboratory, Beltsville, Maryland

THE CATALPA SPHINX

The catalpa sphinx (Ceratomia catalpae (Bdv.)) is perhaps the most common pest of the catalpa tree, commonly known as the cigartree or beantree. Individual trees or groves of trees are often completely defoliated by the caterpillars of this insect. It occurs from New Jersey westward to Missouri and southward to Florida and Texas.

Habits and Life History

The insects overwinter as pupae in the soil. These pupae produce large, grayish-brown moths, often called sphinx or hawk moths, having a wing expanse of about 3 inches. They emerge late in the spring, mate, and lay their eggs in masses of several hundred on the underside of catalpa leaves. Sometimes a few eggs are deposited on the bark. After the eggs hatch, the young caterpillars feed in groups for a long time before scattering over the tree.

The caterpillars, or larvae, grow rapidly and when full grown are about 3 inches long, with a short horn near the hind end of the body. They are conspicuously marked with yellow and black stripes and are highly prized as bait by fishermen. The mature larvae crawl down the trunks of the trees and enter the ground, where they change to pupae. There are at least two complete generations annually in the vicinity of Washington, D. C. Larvae may be present from early in June to late in September. There may be three or even four generations in the Southern States.

Control

This insect can be readily controlled by spraying the infested trees with either lead arsenate or DDT. Trees that are likely to be infested should be kept under close observation so that they can be sprayed while the caterpillars are small and before many of the leaves are eaten. Lead arsenate should be used at the rate of 3 or 4 level tablespoonfuls to each gallon of water, or 4 pounds to 100 gallons of water. The amount of DDT required will depend upon the type of material being used and the percent of technical DDT contained in it. For example, a 50 percent DDT wettable powder should be used at the rate of 2 level tablespoonfuls to each gallon of water, or 2 pounds to 100 gallons. An emulsion concentrate containing 25 percent of technical DDT should be diluted at the rate of 4 teaspoonfuls to each gallon or 2 quarts per 100 gallons of water. Do not attempt to apply an oil solution of DDT to trees with ordinary spraying equipment, because the oil will burn the foliage.

When an infestation is not discovered until after all or most of the leaves have been eaten, DDT will give much better control than will lead arsenate, because the DDT will kill by contact whereas lead arsenate must be eaten with the foliage. Even nearly mature larvae that are crawling around in search of food can be killed by DDT, but it may be necessary to use a spray that is twice as strong.

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